

# DISCOVERY OF *HYDROCOTYLE BOWLESIOIDES* (ARALIACEAE) IN LOUISIANA

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## ABSTRACT

*Hydrocotyle bowlesioides* is reported for the first time for Louisiana. The report represents only the third report of the species for the continental United States. The species is contrasted with the morphologically similar *Bowlesia incana* to facilitate future detection.

## RESUMEN

Se cita por primera vez *Hydrocotyle bowlesioides* para Louisiana. Esta cita es la tercera de la especie en la parte continental de Estados Unidos. Se contrasta la especie con *Bowlesia incana* que es similar morfológicamente para facilitar futuras detecciones.

This is the first report of *Hydrocotyle bowlesioides* Mathias & Constance (Araliaceae) for Louisiana and only the third report of the species for the continental United States. The report is based on a gathering in western Louisiana in 2004 and originally annotated as *Bowlesia incana* Ruiz & Pav. (Apiaceae). However, when reviewed by the present authors as part of a treatment of *Bowlesia* Ruiz & Pav. for the *Flora of North America*, it became evident that the specimens belonged instead to *Hydrocotyle* L. Preliminary investigation suggested *Hydrocotyle bowlesioides*, a hypothesis confirmed by close scrutiny of the protologue (Mathias & Constance 1942) and an assessment of high resolution digital images through [jstor.plants.org](http://jstor.plants.org) of the type *Skutch 3573* (HT: US!; IT: K!, NY!). Native to Costa Rica and Panama, *Hydrocotyle bowlesioides* has been reported in the continental United States from Thomasville, GA (Anderson 1983) and Tallahassee, FL (Anderson 2007; see Mast et al. 2004 [continuously updated] for digital images of the specimens). Though only approximately thirty miles apart, these two populations likely resulted from different invasion events. As noted by Anderson (2007), the Thomasville population expired by the mid-1990s while the Tallahassee population, collected in 2006, occupies a site at which extensive construction and landscaping occurred in 2003 (L.C. Anderson, pers. comm.). The collection of *H. bowlesioides* in western Louisiana thus seems to represent a third instance of invasion in the southeastern United States, 500 miles west of the previously known introductions. Though the means of transport of the species remains obscure, its presence in Alabama, Mississippi, and eastern Texas may be expected.

Unfortunately, habitat details are absent from the collection labels of the Louisiana specimen. However, the presence of *Dichondra carolinensis* Michx. (Convolvulaceae) and a few leaves of a *Vicia* sp. (Fabaceae) intermixed with the *Hydrocotyle* on one of the duplicate sheets suggest a moist disturbed habitat, likely a lawn. Such a speculation is consistent with the habitats of both previously-reported populations.

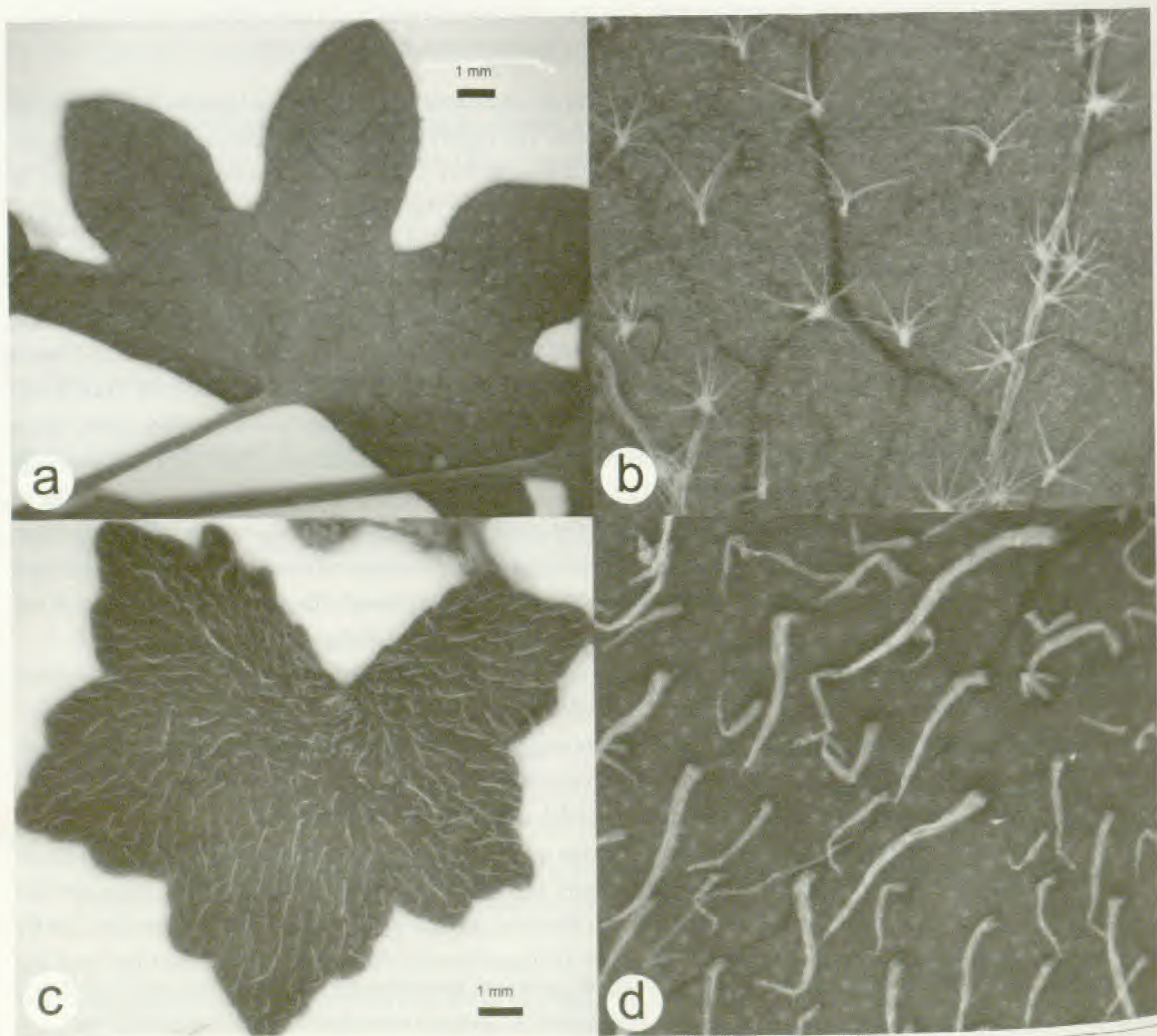
As its epithet indicates, *H. bowlesioides* is superficially similar to some members of *Bowlesia*, including *Bowlesia incana*, the only representative of the genus in the southeastern United States. Like *H. bowlesioides*, *B. incana* is a non-native, low-growing weed found in lawns and other wet, often disturbed sites. Both species have palmately-lobed leaves that are pubescent on both surfaces and are borne on slender petioles that can be up to 12 cm long. However, the two species may be easily distinguished by the character and distribution of the trichomes, the number and shape of the leaf lobes, the character of the leaf margins, and various features of the fruits, as summarized in Table 1 and depicted in Figure 1.

**Voucher specimen:** LOUISIANA. Vernon Parish: private property W of La 399 circa 1.8 mi S of Cravens Sec 26 T1S R7W; 26 Apr 2004, Charles Allen 19339 (BRIT [2 sheets!]).



TABLE 1. Distinguishing morphological features between *Bowlesia incana* and *Hydrocotyle bowlesioides*.

	<i>Bowlesia incana</i>	<i>Hydrocotyle bowlesioides</i>
<b>Trichomes</b>	stellate (with (6–)8(–12) rays emanating from a central disk); not noticeably crowded at the apical portion of the petiole	hirsute (stiff, uniseriate); frequently crowded at and giving a fuzzy appearance to the apical portion of the petiole
<b>Leaf lobes</b>	5–9, oblong to elliptic, extending to near or just below the middle of the blade	5, obtusely triangular, shallow
<b>Leaf margins</b>	entire	crenate to nearly entire
<b>Fruits</b>	inflated (at least at maturity), stellate-pubescent to glabrous, ribs not prominent	not inflated, hispidulous, not stellate-pubescent, ribs prominent

FIG. 1. Leaf and trichome morphology of *Bowlesia incana* (a–b) and *Hydrocotyle bowlesioides* (c–d). Based on Sundell 18378 (BRIT; a–b) and Allen 19339 (BRIT; c–d).



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